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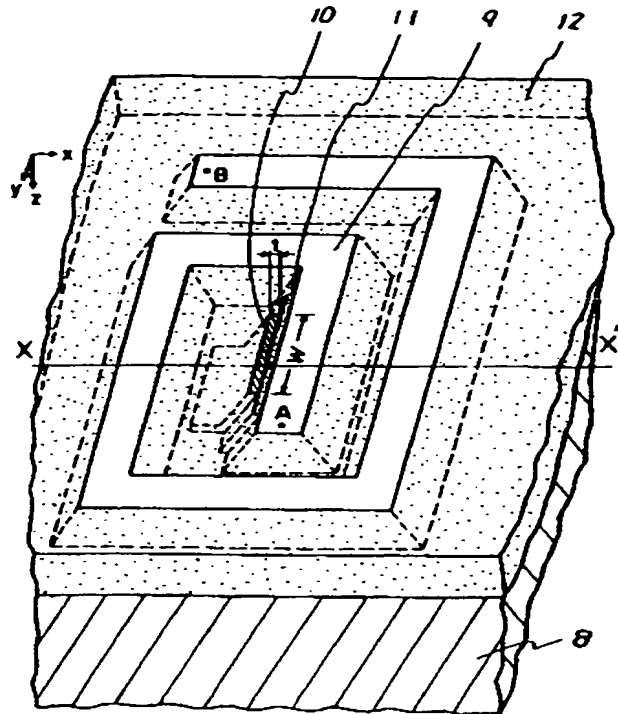
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APPLICANT : NEC CORP;

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TITLE : VERTICAL MAGNETIC HEAD



**ABSTRACT :** PURPOSE: To enable efficient recording and reproduction using only one side of a medium by placing winding for recording and reproduction at a position close to a magnetic pole formed so as to introduce efficiently magnetic flux during recording and reproduction.

CONSTITUTION: An electric conductor layer 9 of Au, Cu or the like for recording and reproduction is spirally formed on a substrate 8 made of a magnetic body with high magnetic permeability such as Mn-Zn ferrite or Ni-Zn ferrite. The layer 9 has a cross-sectional shape having planes inclined to the surface of the substrate. A magnetic film 10 of an Ni-Fe alloy or a Co-Zr alloy with high magnetic permeability is then formed by vapor deposition, sputtering or other method at a position close to the innermost part of the spiral so that the film 10 having a width W is brought into contact with one of the inclined planes through an insulating layer 11 and into direct contact with the surface of the substrate. Since the magnetic body 8 with high magnetic permeability is positioned very close to the edge of the resulting vertical magnetic head facing a medium, the film 10 acting as a magnetic pole can efficiently converge magnetic flux during recording and reproduction. The distance from the body 8 to the edge of the head is several  $\mu\text{m}$ .

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